Attorney's Docket No. 1010315-000089

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Petter Bragd et al.

Application No.: 09/651,127

Filed: August 30, 2000

For: ABSORBENT STRUCTURE IN AN ABSORBENT ARTICLE AND A METHOD OF PRODUCING IT

MAIL STOP APPEAL BRIEF - PATENTS

Group Art Unit: 3761

Examiner: CATHERINE L. ANDERSON

Appeal No.: _____

APPEAL BRIEF

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APPEAL BRIEF

Mail Stop APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in response to the Notice of Non-Compliance dated June 6, 2007.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

I. Real Party in Interest

The present application is assigned to SCA Hygiene Products AB. SCA Hygiene Products AB is the real party in interest, and is the assignee of Application No. 09/651,127.

II. Related Appeals and Interferences

The Appellant, legal representative, or assignee, does not know of any other appeal or interferences which will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-4, 6, 11-12 and 15-18 are the pending claims and stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over *Graef* (U.S. Patent No. 6,518,479) in view of *Rezai* (U.S. Patent No. 5,713,881).

Claims 1-4, 6, 11-12 and 15-18 are presently appealed. A copy of the claims involved in the appeal is contained in an attached Claims Appendix.

IV. Status of Amendments

The amendments made in the Amendment filed on November 25, 2005 were entered. There were no claim amendments submitted subsequent to the final Office Action of April 10, 2006.

V. Summary of Claimed Subject Matter

Figure 1 of the application represents an absorbent structure 1 according to a preferred embodiment of the invention. The absorbent structure includes at least two, and in the illustrated embodiment, three, integrated layers 2, 3, 4. Each layer comprises a compressed foam material which upon contact with liquid expands strongly while absorbing the liquid. The layers have different pore sizes. See, page

3, lines 6-9. The different layers 2, 3, 4 are preferable integrated with each other and partly penetrate into each other so that there is no clear partitioning line between the layers, but a mixture of the different pore sizes; thus promoting liquid transport between the layers. See, page 3, lines 16-19. According to a preferred embodiment, the foam material is a regenerated cellulose, such as viscose, which is a foam containing a framework of cellulose. See, page 3, lines 21-23. In order to provide the desired pore size gradient, different viscose solutions are used, which are applied on top of each other and then regenerated. By the fact that the different layers are placed on top of each other before they are dry there is achieved an integrated structure, in which the layers partly penetrate into each other. See, Page 4, lines 1-6.

As explained on page 5, lines 1-6, superabsorbent materials may be aded to the foam material in connection with the viscose production, i.e., before foaming. The concentration of superabsorbent preferably is in the form of a gradient so that the layer with the largest pores contains the smallest amount of superabsorbent and the layer with the smallest pores contains the highest amount of superabsorbent such that the largest liquid storage capacity is provided in the layer facing away from the wearer.

Of the appealed claims, claims 1, 17 and 18 are in independent format. As set forth below, reference is made to Figure 1; however, the comparison of the claimed subject matter to the specification and drawings is not meant to limit the claim language and is instead done for the convenience of the Board.

Claim 1 is directed to an absorbent structure (1) in an absorbent article (5; Figs. 3 and 4). Page 5, line 31 - Page 6, line 2. The absorbent structure (1)

comprises a compressed foam material which expands upon wetting, the foam material comprises at least two integrated layers (2, 3, 4; Fig. 1) having different mean pore sizes. Page 3, lines 6-9. The layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers. Page 3, lines 16-19. The foam material is regenerated cellulose. Page 3, line 21.

Claim 17 is directed to an absorbent structure (1) in an absorbent article (5; Figs. 3 and 4). Page 5, line 31 - Page 6, line 2. The absorbent structure (1) comprises a compressed foam material which expands upon wetting, the foam material comprises a first layer of foam material (2) and a second layer of foam material (3, 4). Page 3, lines 6-9. The first and second layers have different mean pore sizes. Page 3, line 9. The layers (2, 3, 4; Fig. 1) are formed by placing one on top of the other before they are dry so that the layers are integrated so that the foam of the first layer partly penetrates into the foam of the second layer so that there is no clear partitioning line between the layers. Page 3, lines 16-19.

Claim 18 is directed to an absorbent structure (1) in an absorbent article (5; Figs. 3 and 4). Page 5, line 31 - Page 6, line 2. The absorbent structure (1) is a compressed foam material which expands upon wetting, the foam material comprises at least two integrated layers (2, 3, 4; Fig. 1) having different mean pore sizes. Page 3, lines 6-9. The layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers. Page 3, lines 16-19. The foam material is regenerated cellulose. Page 3, line 21.

VI. Grounds of Rejection to be Reviewed on Appeal

Whether claims 1-4, 6, 11-12 and 15-18 are unpatentable under 35 U.S.C. §103(a) over *Graef et al.* (U.S. Patent No. 6,518,479) in view of *Rezai* (U.S. Patent No. 5,713,881).

VII. Argument

A. Prior Art Applied

The primary reference upon which the Examiner relies, *Graef et al.* (hereinafter *Graef)* discloses an absorbent article containing a stratified composite. The unitary stratified composite is composed of a first stratum and a second stratum that are integrally connected by a transition zone. As disclosed throughout *Graef*, the stratum are fibers. For example, *Graef* discloses in column 4, liens 55-58 that "[i]n a preferred embodiment, the first stratum includes a synthetic fiber and, more preferably, the first stratum includes polyethylene teraphthalate." It is clear that the stratums are fibrous and do not include the claimed foam material. In fact, the only disclosure in *Graef* relating to foam is made in connection with what is known as the "foam method" which is a method for forming a composite of fiber strata. Basically, the stratums are formed by dispersing the fibers in a foamed liquid and then draining them by a vacuum to remove the foam, thereby leaving a fibrous sheet (column 18, lines 18-30). In *Graef's* process, the foam is removed from the fibrous sheet and is thus not present in the final absorbent fibrous structure.

Graef also discloses that the fibers of the first and second stratum can commingle with one another. In column 6, lines 38-44 *Graef* states that "[t]he

intimate commingling between the fibers of the first and second stratum of the unitary stratified composite of this invention provided by the transition zone enables more efficient drainage of the first stratum and fluid communication between the two strata than in absorbent products formed from separate and distinct acquisition and storage layers." Thus, it is disclosed that the first and second fibrous strata layers should be commingled with one another, but not that the fibrous strata layers can be, or should be, cellulosic foam layers commingled with one another.

The secondary reference upon which the Examiner relies, *Rezai,* discloses a cellulose foam layer 72, and a layer 71 that is composed of an absorbent macrostructure material comprising primarily absorbent gelling particles. In column 21, lines 18-21 *Rezai* describes that the substrate layer comprises a cellulosic foam and that, in general; a cellulosic foam will provide a higher liquid wicking rate over a longer wicking distance than a cellulosic fibrous web. However, *Rezai* does not disclose that a first and second foam layer could, or should be, formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers.

B. Claims 1-4, 6, 11-12 and 15-18

Claims 1-4, 6, 11-12 and 15-18 are argued as a group with respect to patentability in view of the final rejection.

Claims 1-4, 6, 11-12 and 15-18 stand rejected as being unpatentable under 35 U.S.C. §103(a) over *Graef et al.* (U.S. Patent No. 6,518,479) in view of *Rezai* (U.S. Patent No. 5,713,881).

Appellants submit that the Office has not established a *prima facie* case of obviousness and this rejection must therefore be withdrawn.

The Official Action recognizes that *Graef* does not disclose a foam material comprising at least two integrated layers, and relies on *Rezai* for a disclosure of that subject matter. The Official Action sets forth the idea that it would have been obvious to modify *Graef* so that the strata layers of cellulose fibers are made from the foam material described in *Rezai* "to provide a higher liquid wicking rate," and that it would have been obvious to commingle the resulting first and second strata layer of foam. However, there is no suggestion in either *Graef* or *Rezai* that the foam described in *Rezai* should be, or could be, formed in two layers that are commingled with one another as disclosed in *Graef* with regard to fibrous strata layers. That is, while *Graef* describes that the first and second fibrous strata layer should be commingled, it gives no indication that such is applicable to **foam** layers. Moreover, it would not have been obvious to use the teaching of *Graef* for making a foam layer since in *Graef* the foam is actually removed during formation of the web and is not present at all in the final absorbent structure.

Therefore, there is no disclosure in either cited document that would have directed a skilled person in the art to replace the cellulose fibrous layers in *Graef* with regenerated cellulose foam layers and to configure the foam layers so that they commingle, as disclosed in *Graef* with regard to fibrous strata layers. For at least these reasons, the disclosures of *Graef* and *Rezai* do not together disclose the claimed combination of features including an absorbent structure comprising a compressed foam material wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate each other so there is no clear partitioning line between the layers as defined by Claims 1, 17 and 18.

In addition, the Office appears to recognize on the one hand that since cellulose fibers and foam are materially different, one would not form the claimed foam layers based upon the teaching disclosed in *Graef* for forming the fibrous layers. Hence the Office relies upon *Rezai* for its disclosure of cellulose foam. But on the other hand, the Office maintains that since *Graef* "teaches the importance of the layered structure having no clear partitioning between the layers, it would be obvious to maintain this important feature whether the layers are formed of cellulosic fibers or foam." The crucial issue however missing from this rationale must be whether it would have been obvious at all for the skilled person to apply any part of the teaching of *Graef*, which deals with fibrous structures, to foam structures according to *Rezai*. Appellants contend that it is contradictory to on the one hand recognize that it was not obvious to use the method disclosed by *Graef* for forming a foam layer, hence the reliance on *Rezai*, but then on the other hand state that it would have been obvious to apply the layered structure of *Graef* to a foam structure.

Accordingly, it would not be obvious to one skilled in the art to create at least two integrated foam layers having different mean pore sizes, wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers, wherein the foam material is regenerated cellulose.

VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

IX. Evidence Appendix

See attached Evidence Appendix for copies of evidence relied upon by Appellant.

X. Related Proceedings Appendix

See attached Related Proceedings Appendix for copies of decisions identified in Section II, supra.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date July 5, 2007

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VIII. CLAIMS APPENDIX

The Appealed Claims

1. (Previously Presented) An absorbent structure in an absorbent article, the absorbent structure comprising a compressed foam material which expands upon wetting, the foam material comprises at least two integrated layers having different mean pore sizes, wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers, wherein the foam material is regenerated cellulose.

2. (Previously Presented) The absorbent structure as claimed in claim 1, wherein the foam material contains superabsorbent material.

3. (Previously Presented) The absorbent structure as clamed in claim 2, wherein each layer contains a different amount of superabsorbent materials.

4. (Previously Presented) The absorbent structure as claimed in claim 3, wherein the layer having the largest mean pore size contains the lowest amount of superabsorbent material and the layer having the smallest mean pore size contains the highest amount of superabsorbent material.

5. (Canceled)

6. (Previously Presented) The absorbent structure as claimed in claim 1, wherein the foam material in the different layers may be of different polymers.

7-10. (Canceled)

11. (Previously Presented) An absorbent article comprising a liquid permeable topsheet, a liquid impermeable backsheet and an absorbent structure applied therebetween, wherein the absorbent structure is as claimed in claim 1.

12. (Previously Presented) The absorbent structure as claimed in claim 1, wherein the absorbent article is a diaper, a pant diaper, an incontinence guard, a sanitary napkin, a wound dressing, or a bed protector.

13. (Canceled)

14. (Canceled)

15. (Previously Presented) The absorbent structure as claimed in claim 1, wherein the regenerated cellulose is viscose.

16. (Previously Presented) The absorbent article of claim 11, wherein the absorbent article is a diaper, a pant diaper, an incontinence guard, a sanitary napkin, a wound dressing, or a bed protector.

17. (Previously Presented) An absorbent structure in an absorbent article, the absorbent structure comprising a compressed foam material which expands upon wetting, the foam material comprises a first layer of foam material and a second layer of foam material, wherein the first and second layers have different mean pore sizes, wherein the layers are formed by placing one on top of the other before they are dry so that the layers are integrated so that the foam of the first layer partly penetrates into the foam of the second layer so that there is no clear partitioning line between the layers.

18. (Previously Presented) An absorbent structure in an absorbent article, the absorbent structure is a compressed foam material which expands upon wetting, the foam material comprises at least two integrated layers having different mean pore sizes, wherein the layers are formed by placing one on top of the other before they are dry so that the layers partly penetrate into each other so that there is no clear partitioning line between the layers, wherein the foam material is regenerated cellulose.

IX. EVIDENCE APPENDIX

NONE

X. RELATED PROCEEDINGS APPENDIX

NONE